

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (Canceled).

3. (Previously presented) The composite metal seal as claimed in claim 4, wherein the core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the annular region of relatively soft metal.

4. (Currently amended) A composite metal seal comprising a core of relatively hard metal, and at least one annular region of relatively soft metal that is integrally bonded with the core of relatively hard metal and that provides an annular sealing surface for effecting a fluid pressure seal, wherein the ~~annual~~ annular region of relatively soft metal is welded onto the core of relatively hard metal.

5. (Previously presented) The composite metal seal as claimed in claim 4, wherein the annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the annular region of relatively soft metal.

6. (Previously presented) The composite metal seal as claimed in claim 4, wherein the composite metal seal has a longitudinal axis, and the sealing surface is tapered with respect to the longitudinal axis.

7. (Original) The composite metal seal as claimed in claim 6, wherein the annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular sealing surface, the annular groove being rectangular in cross-section and having walls that are perpendicular to the tapered annular sealing surface.

Claims 8-9 (Canceled).

10. (Previously presented) The composite metal seal ring as claimed in claim 11, wherein the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the first annular region of relatively soft metal, and the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the second annular region of relatively soft metal.

11. (Currently amended) A composite metal seal ring for effecting a fluid pressure seal with respective annular surfaces of first and second hub members, the composite metal seal ring comprising an annular core of relatively hard metal, a first annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, and a second annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, the first annular region of relatively soft metal having a first annular surface for mating with the annular

surface of the first hub member to effect a fluid pressure seal with the first hub member, and the second annular region of relatively soft metal having a second annular surface for mating with the annular surface of the second hub member to effect a fluid pressure seal with the second hub member, wherein the two annular regions of relatively soft metal are displaced from each other along a longitudinal axis of the composite metal seal ring, wherein the first ~~annular~~ annular region of relatively soft metal is welded onto the annular core of relatively hard metal, and the relatively soft metal of the second annular region of relatively soft metal is welded onto the annular core of relatively hard metal.

12. (Previously presented) The composite metal seal ring as claimed in claim 11, wherein the first annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the first annular region of relatively soft metal, and the second annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the second annular region of relatively soft metal.

13. (Previously presented) The composite metal seal ring as claimed in claim 11, wherein the composite metal seal ring has a longitudinal axis, and the annular surface of the first annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the second annular region of relatively soft metal and that is largest toward the second annular region of relatively soft metal, and the annular surface of the second annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the first annular region of relatively soft metal and that is largest toward the first annular region of relatively soft metal.

14. (Original) The composite metal seal ring as claimed in claim 13, wherein the first annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the first annular region of relatively soft metal, the annular groove in the first annular region of relatively soft metal being rectangular in cross-section and having walls that are perpendicular to the tapered annular surface of the first annular region of relatively soft metal, and

wherein the second annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the second annular region of relatively soft metal, the annular groove in the second annular region of relatively soft metal being rectangular in cross-section and having walls that are perpendicular to the tapered annular surface of the second annular region of relatively soft metal.

Claims 15-20 (Canceled).

21. (Currently amended) A composite metal seal ring for effecting a resettable fluid pressure seal with respective annular surfaces of first and second hub members, the composite metal seal ring comprising an annular core of relatively hard metal, a first annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, and a second annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, the first annular region of relatively soft metal having a first annular surface for mating with the annular surface of the first hub member to effect a fluid pressure seal with the first hub member, and the second annular region of relatively soft metal having a second annular surface

for mating with the annular surface of the second hub member to effect a fluid pressure seal with the second hub member, wherein the two annular regions of relatively soft metal are displaced from each other along a longitudinal axis of the composite metal seal ring;

wherein the first annular region of relatively soft metal has a thickness in said radial direction of at least one-eighth of an inch, and the second annular region of relatively soft metal has a thickness in said radial direction of at least one-eighth of an inch;

wherein the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the first annular region of relatively soft metal, and the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the second annular region of relatively soft metal;

wherein the first ~~annular~~ annular region of relatively soft metal is welded onto the annular core of relatively hard metal, and the relatively soft metal of the second annular region of relatively soft metal is welded onto the annular core of relatively hard metal;

wherein the composite metal seal ring has a longitudinal axis, and the annular surface of the first annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the second annular region of relatively soft metal and that is largest toward the second annular region of relatively soft metal, and the annular surface of the second annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the first annular region of relatively soft metal and that is largest toward the first annular region of relatively soft metal.

22. (Previously presented) The composite metal seal ring as claimed in claim 21, wherein the first annular region of relatively soft metal has at least one annular groove in the

neighborhood of the annular surface of the first annular region of relatively soft metal, the annular groove in the first annular region of relatively soft metal being rectangular in cross-section and having walls that are perpendicular to the tapered annular surface of the first annular region of relatively soft metal, and

wherein the second annular region of relatively soft metal has at least one annular groove in the neighborhood of the annular surface of the second annular region of relatively soft metal, the annular groove in the second annular region of relatively soft metal being rectangular in cross-section and having walls that are perpendicular to the tapered annular surface of the second annular region of relatively soft metal.

23. (Previously presented) The composite metal seal ring as claimed in claim 21, wherein the composite metal seal ring is adapted for containing a pressure within the hubs of at least 10,000 psi.

24. (Previously presented) The composite metal seal ring as claimed in claim 21, wherein the composite metal seal ring has an internal diameter of at least 3 inches.

25. (Previously presented) The composite metal seal ring as claimed in claim 21, wherein the composite metal seal ring is a hybrid of a pressure energized seal type AX and a compression seal type BX.

26. (Currently amended) A composite metal seal ring for effecting a resettable fluid pressure seal with respective annular surfaces of first and second hub members, the composite

metal seal ring comprising an annular core of relatively hard metal, a first annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, and a second annular region of relatively soft metal integrally bonded to the annular core of relatively hard metal, the first annular region of relatively soft metal having a first annular surface for mating with the annular surface of the first hub member to effect a fluid pressure seal with the first hub member, and the second annular region of relatively soft metal having a second annular surface for mating with the annular surface of the second hub member to effect a fluid pressure seal with the second hub member, wherein the two annular regions of relatively soft metal are displaced from each other along a longitudinal axis of the composite metal seal ring;

wherein the first annular region of relatively soft metal has a thickness in said radial direction of at least one-eighth of an inch, and the second annular region of relatively soft metal has a thickness in said radial direction of at least one-eighth of an inch;

wherein the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the first annular region of relatively soft metal, and the annular core of relatively hard metal is inlaid and overlaid with the relatively soft metal of the second annular region of relatively soft metal;

wherein the first ~~annular~~ annular region of relatively soft metal is welded onto the annular core of relatively hard metal, and the relatively soft metal of the second annular region of relatively soft metal is welded onto the annular core of relatively hard metal;

wherein the composite metal seal ring has a longitudinal axis, and the annular surface of the first annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the second annular region of relatively soft metal and that is largest toward the second annular region of relatively soft metal, and the

annular surface of the second annular region of relatively soft metal is tapered with respect to the longitudinal axis to have a varying radius that is smallest away from the first annular region of relatively soft metal and that is largest toward the first annular region of relatively soft metal; and

wherein the composite metal seal ring is adapted for containing a pressure within the hubs of at least 10,000 psi, the composite metal seal ring has an internal diameter of at least 3 inches, and the composite metal seal ring is a hybrid of a pressure energized seal type AX and a compression seal type BX.